UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,826	02/27/2001	Ronald Peter W. Kesselmans	294-96 PCT/U	8612

23869 7590 06/26/2002

HOFFMANN & BARON, LLP
6900 JERICHO TURNPIKE
SYOSSET, NY 11791

EXAMINER
WHITE, EVERETT NMN

ART UNIT	PAPER NUMBER
1623	7

DATE MAILED: 06/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/743,826	KESSELMANS ET AL.	
	Examiner	Art Unit	
	EVERETT WHITE	1623	

-- The MAILING DATE of this communication appears on the cover sheet with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Abstract

1. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, **Claim 3** recites the broad recitation "wherein the alkaline treatment lasts at least 30 minutes", and the claim also recites "preferably at least 60 minutes" which is the narrower statement of the range/limitation. Also see similar type of language used in **Claim 6** whereby after recitation of the broad statement "wherein the starch is treated with alkali metal hypochlorite at a pH between 6 and 10" is set forth, the narrower statement, which

recites "preferably between 6.5 and 8.5" is disclosed. **Claim 8** also discloses a broad limitation followed by a narrow limitation at lines 13 and 14 of Claim 8 for the values of X and Y which renders the claim indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Wikstrom (WO 97/04167).

The Wikstrom WO patent discloses an oxidized amylopectin starch that has been treated with sodium hydroxide and sodium hypochlorite (see Example 2 on page 4 of the Wikstrom WO patent), which anticipates the oxidized starch of Claim 7 since the sodium hydroxide and sodium hypochlorite treatment indicated in the Wikstrom patent is analogous to the alkaline and alkali metal hypochlorite treatment disclosed for the oxidized starch of instant Claim 7. See the sentence at lines 13-15 on page 2 of the Wikstrom WO patent, which discloses that the amylopectin content of amylopectin-type starch disclosed in the Wikstrom WO patent is in excess of 95%, preferable in excess of 98%.

The Wikstrom WO patent further discloses the amylopectin-type starch being use to produce finishing agent, which further allows the manufacturing of surface-sizing and coating products (see page 2, lines 29-33). The surface-sizing and coating product of the Wikstrom WO patent anticipates the coating product set forth in instant Claim13.

6. Claims 7, 11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Huizenga (EP 799837).

The Huizenga EP patent discloses compositions that comprises an amylopectin-potato starch that may be used in different products that include food products and adhesives (see page 4, lines 21 and 22), which anticipates the adhesive of instant Claim 11 and the food additive of instant Claim 14. See page 3, lines 1 and 2 of the Huizenga EP patent wherein the amylopectin-potato starch is disclosed as having an amylopectin content of at least 95 wt.%, based on the dry substance.

7. Claims 7, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Elser et al (US Patent No. 4,171,407).

The Elser et al patent discloses the use of amylopectin as protective colloids that are used to prepare coatings on paper (See column 2, lines 1-5 and lines 53-59 of the Elser et al patent), which anticipates the binder in paper coatings and protective colloid set forth in instant Claims 10 and 13.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wikstrom (WO 97/04167) in view of Whitaker et al (GB 1,425,822) or Just et al (US Patent No. 4,841,040).

Applicants claim a process for the oxidation fo a starch, wherein a root or tuber starch comprising at least 95 wt.% amylopectin, based on dry substance of the starch, is treated with alkali metal hypochlorite to form a product, said product is subjected to an alkaline treatment, said treatment comprising keeping the product for at least 15 minutes at a temperature of 20-50°C and a pH higher than 10.

Example 2 on page 4 of the Wikstrom WO patent discloses a process for producing an oxidized amylopectin starch that comprises treating amylopectin-type starch with sodium hydroxide and sodium hypochlorite. See the sentence at lines 13-15 on page 2 of the Wikstrom WO patent, which discloses that the amylopectin content of amylopectin-type starch is in excess of 95%, preferable in excess of 98%. The instantly claimed invention differs from the Wikstrom WO patent by disclosing that the alkaline treatment is performed at a pH higher than 10.5 for at least 15 minutes at a temperature of 20-50°C and that the starch is treated with the alkali metal hypochlorite at a pH between 6 and 10. The Whitaker et al GB patent discloses a process for the oxidation

of starch whereby the alkaline treatment can be carried out at a pH from 8 to 14 (see page 1, 1st column, lines 40-43), which covers the pH values higher than 10.5. The Just et al patent also discloses a process for oxidizing starch whereby the slurry is heated to 50°C and treated with alkaline sodium hypochlorite solution, which results in pH values from about 6.5 to 11.0, which covers the pH value of the alkali metal hypochlorite treatment between 6 and 10 that is set forth in instant Claim 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the process for oxidizing the amylopectin-type starch of the Wikstrom WO patent the reaction condition of the temperature and pH for the alkaline and sodium hypochlorite treatments of the Whitaker et al and Just et al patents in view of the recognition in the art, as evidenced by the Whitaket et al and Just et al patents, that such reaction conditions are effective for carrying out the oxidation of starch materials.

11. All the pending claims are rejected.

Examiner's Telephone Number, Fax Number, and Other Information

12. For 24 hour access to patent application information 7 days per week, or for filing applications, please visit out website at **www.uspto.gov** and click on the button "Patent Electronic Business Center" for more information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is (703) 308-4621. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter, can be reach on (703) 308-4532. The fax phone number for this Group is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

E. White
E.White

JAMES O. WILSON
PRIMARY EXAMINER
Technology Center 1600